

by the information manipulation and distribution section PB.

More specifically, for example, backgrounds viewed from the cameras corresponding to conference participants HM located at remote places are set to blue backgrounds; the information manipulation and distribution section PB extracts these blue backgrounds as backgrounds; and changes them to backgrounds having the same colors in units of groups. The information manipulation and distribution section PB sets the background color of each image and performs image processing according to the group information. A method for setting the backgrounds of conference participants who belong to the same group as the self (conference participant HM1) to, for example, a fixed color (such as blue) can be considered so as to understand the conference participants belonging to the same group as the conference participant HM1.

Fig. 37A and Fig. 37B show example background colors used before and after conversion. In the figure, G1 to G3 indicate the numbers of groups to which conference participants belong. In this case, in a state obtained after the conversion shown in Fig. 37B, the conference participants belonging to the group G2 understand that the conference participant having the blue background belongs to the same group, and easily understands that the group G1 having a red background and the group G3 having a green

background are formed.

7. First example of grouping processing which uses a statistical relationship, in the seating-order determination device

In the foregoing case, the seating-order determination device GJD uses a group determination method based on the rule in which a link is made between a person who pays attention to another person and the another person, who attracts attention, and one group is formed of persons who are coupled directly or indirectly by links. In another case, a group can be determined by statistical relationships between attention patterns which indicate combinations of the attention destinations of conference participants, and group patterns.

In such a case, a process can be used in which the seating-order determination device GJD prepares a group determination table like that shown in Fig. 40, and converts an attention pattern to a group pattern according to the table.

A method for preparing such a group determination table in advance according to statistics will be described below. A case in which the number of conference participants is three will be taken as an example.

To make a group determination table, an experiment is

performed to have actual conversation states, and time-sequential samples formed of combinations of attention patterns and group patterns are prepared, for example, at a predetermined interval.

It is possible, for example, that attention patterns are automatically obtained and group patterns are determined by a person.

Two methods for generating a group determination table according to the samples can be considered. A first method will be described first.

In this method, the most frequently generated group pattern is found for each attention pattern, and the group pattern is registered as the group pattern corresponding to the attention pattern.

An experiment is first performed in this method to record a pattern of the attention destinations of conference participants and a group pattern formed at that time at a predetermined interval to generate a frequency table between attention patterns and group patterns, like that shown in Fig. 39.

In Fig. 39, numbers (zero indicates that a conference participant pays attention to nobody) indicated below conference participants HM1 to HM3 are those of the attention destinations of the conference participants, and GP1 to GP5 indicate the numbers of group patterns.